

SEQUENCE LISTING

<110> Samuel Jotham Reich
 Enrico Maria Surace
 Michael J. Tolentino

<120> COMPOSITIONS AND METHODS FOR siRNA
 INHIBITION OF HIF-1 ALPHA

<130> 43826-0002US1

<150> US 60/423,262

<151> 2002-11-01

<160> 299

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 2964

<212> DNA

<213> Homo sapiens

<400> 1

```

ggccgtccct ggccggcggag atggcggcga cagcggcggga ggctgtgacc tctggctctg 60
gagagccccg ggaggaggct ggagccctcg gccccgcctg gcatgaatcc cagttgcgca 120
gttatagctt cccgactagg ccattccgc gtctgagtca gacgacccc cgggcagagg 180
agcttattga gaatgaggag cctgtggtgc tgaccgacac aaatcttgtg taccctgccc 240
tgaaatggga ccttgaatac ctgcaagaga atattggcaa tggagacttc tctgtgtaca 300
gtgccagcac ccacaagttc ttgtactatg atgagaagaa gatggccaat ttccagaact 360
ttaagccgag gtccaacagg gaagaaatga aatttcatga gttcgttgag aaactgcagg 420
atatacagca gcgaggaggg gaagagaggt tgtatctgca gcaaacgctc aatgacactg 480
tgggcgggaa gattgtcatg gacttcttag gttttaactg gaactggatt aataagcaac 540
agggaaagcg tggctggggg cagcttacct ctaacctgct gctcattggc atggaaggaa 600
atgtgacacc tgctcactat gatgagcagc agaacttttt tgctcagata aaaggttaca 660
aacgatgcat cttattccct cggatcagt tcgagtgcct ctaccatac cctgttcac 720
acccatgtga cagacagagc caggtggact ttgacaatcc cgactacgag aggttcccta 780
atttccaaaa tgtggttggg tacgaaacag tggttggccc tgggtgatgt ctttacatcc 840
caatgtactg gtggcatcac atagatcat tactaaatgg ggggattacc atcactgtga 900
acttctggta taagggggct cccacccta agagaattga ataccctctc aaagctcatc 960
agaaagtggc cataatgaga aacattgaga agatgcttgg agaggccttg gggaaaccac 1020
aagaggtggg gcccttgttg aacacaatga tcaagggccg gtacaactag cctgccaggg 1080
gtcaaggcct cctgccaggg gactgctatc ccgtccacac cgcttcattg atgaggacag 1140
gagactcaa gcgctagtat tgcacgtgc acttaatgga ctggactctt gccatggccc 1200
aggagttagg tgtttggagc gaggcagggc agttggcact ccactcctat ttggagggac 1260
ttcataccct tgcctcttgt gcccagcac cttctctctc tgccccccgc cttaaagtcct 1320
gcattcagtg tgtggagtcc cagcttttgg ttgtcatcat gtctgtgtgt atgttagtct 1380
gtcaacttcg gaatgtgtgc gtgtgtgtgc atgcacacgc atgtatgtat ctgttccctg 1440
ttccttctgg gtcaggctgt cacttccggc tctcgccct atctcctgca acctcagtgc 1500
ctcagcctga gagagagat agatgctctt ggactcccca ctgcatctgg gctgcagggc 1560
cagagctagt ctgaccatta ggtcagtcct cctcctgaca gtttttgct agtcaagctc 1620
taggcggtat gggaaatggc accgggactc taatggggtg aaagagaggg gaggccttgc 1680

```

tttgagagcc	tatatagcct	tcctgtgaga	gaggattaga	taggggtcca	actgggccta	1740
caagctcaag	ccatacataa	aaggaccttg	ggacataaga	accaatgatt	gtgcataagt	1800
tctaaattag	agacacatat	agtttctctc	tttcagcacc	agctcttgcc	cctatgctgg	1860
gtaccaaggg	agttctccta	gctgtggcct	ctctagggtc	taggggtgca	agcctctgtg	1920
tgtttgtttg	tgtgtgtctg	tgtgtgcgta	tccacactag	gggtgcaagc	ctctgggtgt	1980
gtgtgtgtgt	gtgcgtgcgt	gtgtgtgtgt	gtgtccgtgt	gtgtgtgtgt	gtgtccacac	2040
tggccagcct	ccctacttac	caaggttctc	cactgcttac	cttttccagt	gggacagtac	2100
agtgtgagcc	cccgggaagt	actgcctgac	ctatcctaag	cttttactac	tggatttttag	2160
ccatcatatg	ttggccaggt	ttcactgcag	cctgcccag	gctaactggc	tagagcctcc	2220
aggccctatg	atgtccctg	cccaggccat	atcctttatt	cctgctgagc	ttcctggctg	2280
aatagatgaa	atgggggtcaa	gccaggcgag	ctcattcact	atctgtgatc	cacctcaggg	2340
cacgggcaaaa	cacataggct	tgcgtcttaa	agccagctcc	tctgccagac	cccgttgtaa	2400
tgtgccacaa	cacctcaat	agtcagggca	actggtggag	catggaagtc	gaatttcctt	2460
ttctgttagg	agctactcct	gggaacccct	ctcagggtcg	cagcttacag	gtgggcagct	2520
gtgattgcac	aacttgaagg	gccatcattc	acatctattc	agtgggagtg	gggtccctgg	2580
gattgggcag	tgtgggtggc	ctgtgtctcc	tcacctctgc	tcctgtcttc	atcaccttct	2640
ctctggaagg	gaagaggagt	tgggaaggct	ctgggtttct	tttctttttt	tttttttgcc	2700
aaaggtttac	ttccagcatc	tgagctctgg	ctctcacccc	tgaagctcag	ttatagtgca	2760
ctgatgaact	gagaggatgc	gtgtggatgt	gtgtgcatgc	ctgagtgcgt	tttttgggga	2820
gggggtgtta	tttttagtac	cccattctgg	ggttctctga	tgcagtgtgg	atgtgaagat	2880
atggtacctt	ctcaagtgtg	gctctttcaa	atatagtcaa	tgctgggaaa	aaaaaaaaaa	2940
aaaaaaaaaa	aaaaaaaaaa	aaaa				2964

<210> 2

<211> 3958

<212> DNA

<213> Homo sapiens

<400> 2

gtgctgcctc	gtctgagggg	acaggaggat	cacctctctc	gtcgcttcgg	ccagtgtgtc	60
gggctgggcc	ctgacaagcc	acctgaggag	aggctcggag	ccgggcccgg	accccgccga	120
ttgccgcccg	cttctctcta	gtctcacgag	gggtttcccg	cctcgacccc	ccacctctgg	180
acttgccttt	ccttctcttc	tccgcgtgtg	gagggagcca	gcgcttaggc	cggagcgcgc	240
ctggggggccg	cccgcctgta	agacatcgcg	gggaccgatt	caccatggag	ggcgccggcg	300
gcgcgaacga	caagaaaaag	ataagttctg	aacgtcgaaa	agaaaagtct	cgagatgcag	360
ccagatctcg	gcgaagtaaa	gaatctgaag	ttttttatga	gcttgctcat	cagttgccac	420
ttccacataa	tgtgagttcg	catcttgata	aggcctctgt	gatgaggctt	accatcagct	480
atttgcgtgt	gaggaaactt	ctggatgctg	gtgatttgga	tattgaagat	gacatgaaag	540
cacagatgaa	ttgcttttat	ttgaaagcct	tggatggttt	tgttatggtt	ctcacagatg	600
atggtgacat	gatttacatt	tctgataatg	tgaacaaata	catgggatta	actcagtttg	660
aactaactgg	acacagtgtg	tttgatttta	ctcatccatg	tgacctagag	gaaatgagag	720
aaatgcttac	acacagaaat	ggccttggtg	aaaagggtaa	agaacaaaac	acacagcgaa	780
gcttttttct	cagaatgaag	tgtaccctaa	ctagccgagg	aagaactatg	aacataaagt	840
ctgcaacatg	gaaggatttg	cactgcacag	gccacattca	cgtatatgat	accaacagta	900
accaacctca	gtgtgggtat	aagaaaccac	ctatgacctg	cttggtgctg	atttgtgaac	960
ccattcctca	cccatcaaat	attgaaattc	ctttagatag	caagactttc	ctcagtcgac	1020
acagcctgga	tatgaaattt	tcttattgtg	atgaaagaat	taccgaattg	atgggatatg	1080
agccagaaga	acttttaggc	cgctcaattt	atgaatatta	tcatgctttg	gactctgatc	1140
atctgaccaa	aactcatcat	gatatgttta	ctaaaggaca	agtcaccaca	ggacagtaca	1200
ggatgcttgc	caaaagaggt	ggatatgtct	gggttgaaac	tcaagcaact	gtcatatata	1260
acaccaagaa	ttctcaacca	cagtgcattg	tatgtgtgaa	ttacgttgtg	agtggattta	1320
ttcagcacga	cttgattttc	tccttcaaac	aaacagaatg	tgtccttaaa	ccggttgaat	1380
cttcagatat	gaaaatgact	cagctattca	ccaaagttga	atcagaagat	acaagtagcc	1440
tctttgacaa	acttaagaag	gaacctgatg	ctttaacttt	gctggcccca	gccgctggag	1500
acacaatcat	atcttttagat	tttggcgaca	acgacacaga	aactgatgac	cagcaacttg	1560

aggaagtacc	attatataat	gatgtaatgc	ccccctcacc	caacgaaaaa	ttacagaata	1620
taaatattggc	aatgtctcca	ttaccaccgc	ctgaaacgcc	aaagccactt	cgaagtagtg	1680
ctgaccctgc	actcaatcaa	gaagttgcat	taaaattaga	accaaatacca	gagtcactgg	1740
aactttcttt	taccatgccc	cagattcagg	atcagacacc	tagtccttcc	gatggaagca	1800
ctagacaaaag	ttcacctgag	cctaatagtc	ccagtgaata	ttgtttttat	gtggatagtg	1860
atatggtcaa	tgaattcaag	ttggaattgg	tagaaaaact	ttttgctgaa	gacacagaag	1920
caaagaaccc	attttctact	caggacacag	atttagactt	ggagatgtta	gctccctata	1980
tcccaatgga	tgatgacttc	cagttacggt	ccttcgatca	gttgtcacca	ttagaaagca	2040
gttccgcaag	ccctgaaagc	gcaagtcctc	aaagcacagt	tacagtattc	cagcagactc	2100
aaatacaaga	acctactgct	aatgccacca	ctaccactgc	caccactgat	gaattaaaaa	2160
cagtgcacaaa	agaccgtatg	gaagacatta	aaatattgat	tgcatctcca	tctcctaccc	2220
acatacataa	agaaactact	agtgccacat	catcaccata	tagagatact	caaagtcgga	2280
cagcctcacc	aaacagagca	ggaaaaggag	tcatagaaca	gacagaaaaa	tctcatccaa	2340
gaagccctaa	cgtgttatct	gtcgctttga	gtcaaagaac	tacagttcct	gaggaagaac	2400
taaatccaaa	gatactagct	ttgcagaatg	ctcagagaaa	gcgaaaaatg	gaacatgatg	2460
gttcactttt	tcaagcagta	ggaattggaa	cattattaca	gcagccagac	gatcatgcag	2520
ctactacatc	actttcttgg	aaacgtgtaa	aaggatgcaa	atctagttaa	cagaatggaa	2580
tggagcaaaa	gacaattatt	ttaataccct	ctgatttagc	atgtagactg	ctggggcaat	2640
caatggatga	aagtggatta	ccacagctga	ccagttatga	ttgtgaagtt	aatgctccta	2700
tacaaggcag	cagaaacctt	ctgcaggggtg	aagaattact	cagagctttg	gatcaagtta	2760
actgagcttt	ttcttaattt	cattcctttt	tttggacact	ggtggctcac	tacctaaagc	2820
agtctattta	tattttctac	atctaatttt	agaagcctgg	ctacaatact	gcacaaactt	2880
ggttagttca	atttttgatc	ccctttctac	ttaattttaca	ttaatgctct	tttttagtat	2940
gttctttaat	gctggatcac	agacagctca	ttttctcagt	tttttgggat	ttaaaccatt	3000
gcattgcagt	agcatcattt	taaaaaatgc	acctttttat	ttattttatt	ttggctaggg	3060
agtttatccc	tttttcgaat	tattttttaag	aagatgccaa	tataattttt	gtaagaaggc	3120
agtaaccttt	catcatgatc	ataggcagtt	gaaaaatttt	tacacctttt	ttttcacatt	3180
ttacataaat	aataatgctt	tgccagcagt	acgtggtagc	cacaattgca	caatatattt	3240
tcttaaaaaa	taccagcagt	tactcatgga	atatattctg	cgtttataaa	actagttttt	3300
aagaagaaat	tttttttggc	ctatgaaatt	gttaaacctg	gaacatgaca	ttgttaatca	3360
tataataatg	attcttaaat	gctgtatggt	ttattatttt	aatgggtaaa	gccattttaca	3420
taatatagaa	agatatgcat	atatctagaa	ggtagtggtg	atttatttgg	ataaaattct	3480
caattcagag	aaatcatctg	atgtttctat	agtcactttg	ccagctcaaa	agaaaacaat	3540
accctatgta	gttgtggaag	tttatgctaa	tattgtgtaa	ctgatattaa	acctaaatgt	3600
tctgcctacc	ctgttggtat	aaagatatatt	tgagcagact	gtaaacaaga	aaaaaaaaat	3660
catgcattct	tagcaaaatt	gcctagtatg	ttaatttgct	caaaatacaa	tgtttgattt	3720
tatgcacttt	gtcgctatta	acatcctttt	tttcatgtag	atttcaataa	ttgagtaatt	3780
ttagaagcat	tatttttagga	atatatagtt	gtcacagtaa	atatcttggt	ttttctatgt	3840
acattgtaca	aatttttcat	tccttttgct	ccttggtggt	ggatctaaca	ctaactgtat	3900
tgttttggtta	catcaataaa	acatcttctg	tggaccagga	aaaaaaaaaa	aaaaaaaaaa	3958

<210> 3

<211> 3812

<212> DNA

<213> Homo sapiens

<400> 3

gtgctgcctc	gtctgagggg	acaggaggat	caccctcttc	gtcgcttcgg	ccagtgtgtc	60
gggctgggcc	ctgacaagcc	acctgaggag	aggctcggag	ccggggcccg	accccggcga	120
ttgccgcccc	cttctctcta	gtctcacgag	gggtttcccc	cctcgacccc	ccacctctgg	180
acttgccctt	ccttctcttc	tccgcgtgtg	gagggagcca	gcgcttaggc	cggagcgcgc	240
ctggggggcc	cccgcctgga	agacatcgcg	gggaccgatt	caccatggag	ggcgccgcgc	300
gcgcgaacga	caagaaaaag	ataagttctg	aacgtcgaaa	agaaaagtct	cgagatgcag	360
ccagatctcg	gcgaagtaaa	gaatctgaag	ttttttatga	gcttgctcat	cagttgccac	420
ttccacataa	tgtgagttcg	catcttgata	aggcctctgt	gatgaggctt	accatcagct	480

atttgcgtgt	gaggaaactt	ctggatgctg	gtgatttggg	tattgaagat	gacatgaaag	540
cacagatgaa	ttgcttttat	ttgaaagcct	tggatggttt	tgttatgggt	ctcacagatg	600
atggtgacat	gattttacatt	tctgataatg	tgaacaaata	catgggatta	actcagtttg	660
aactaactgg	acacagtggtg	tttgatttta	ctcatccatg	tgacatgag	gaaatgagag	720
aatgcttac	acacagaaat	ggccttgta	aaaagggtaa	agaacaaaac	acacagcgaa	780
gcttttttct	cagaatgaag	tgtaccctaa	ctagccgagg	aagaactatg	aacataaagt	840
ctgcaacatg	gaaggtattg	cactgcacag	gccacattca	cgtatatgat	accaacagta	900
accaacctca	gtgtgggtat	aagaaaccac	ctatgacctg	cttgggtgctg	atttgtgaac	960
ccattcctca	cccatcaaatt	attgaaattc	ctttagatag	caagactttc	ctcagtcgac	1020
acagcctgga	tatgaaattt	tcttattgtg	atgaaagaat	taccgaattg	atgggatatg	1080
agccagaaga	acttttaggc	cgctcaattt	atgaatatta	tcatgctttg	gactctgac	1140
atctgacca	aactcatcat	gatatgttta	ctaaaggaca	agtcaccaca	ggacagtaca	1200
ggatgcttgc	caaaaagaggt	ggatatgtct	gggttgaaac	tcaagcaact	gtcatatata	1260
acaccaagaa	ttctcaacca	cagtgcattg	tatgtgtgaa	ttacgttggtg	agtgggtatta	1320
ttcagcacga	cttgattttc	tcccttcaac	aaacagaatg	tgctcttaaa	ccggttgaat	1380
cttcagatat	gaaaatgact	cagctattca	ccaaagtgtg	atcagaagat	acaagtagcc	1440
tctttgacaa	acttaagaag	gaacctgatg	ctttaacttt	gctggcccca	gccgctggag	1500
acacaatcat	atcttttagat	tttggcagca	acgacacaga	aactgatgac	cagcaacttg	1560
aggaagtacc	attatataat	gatgtaatgc	tccctcacc	caacgaaaaa	ttacagaata	1620
taaaatttggc	aatgtctcca	ttaccaccgc	ctgaaacgcc	aaagccactt	cgaagttagtg	1680
ctgaccctgc	actcaatcaa	gaagttgcat	taaaattaga	accaaatacca	gagtcactgg	1740
aactttcttt	taccatgccc	cagattcagg	atcagacacc	tagtccttcc	gatggaagca	1800
ctagacaaa	ttcacctgag	cctaatagtc	ccagtgaata	ttgtttttat	gtggatagtg	1860
atatggtcaa	tgaattcaag	ttggaattgg	tagaaaaact	ttttgctgaa	gacacagaag	1920
caaagaaccc	atcttctact	caggacacag	atcttagactt	ggagatgtta	gctccctata	1980
tccaatgga	tgatgacttc	cagttacgtt	ccttcgatca	gttgtcacca	ttagaaagca	2040
gttccgcaag	ccctgaaagc	gcaagtcctc	aaagcacagt	tacagtattc	cagcagactc	2100
aaatacaaga	acctactgct	aatgccacca	ctaccactgc	caccactgat	gaattaaaaa	2160
cagtgcacaa	agaccgtatg	gaagacatta	aaatattgat	tgcactctcca	tctcctaccc	2220
acatacataa	agaaactact	agtgccacat	catcaccata	tagagatact	caaagtcgga	2280
cagcctcacc	aaacagagca	ggaaaaggag	tcatagaaca	gacagaaaaa	tctcatccaa	2340
gaagccctaa	cgtgttatct	gtcgttttga	gtcaaagaac	tacagttcct	gaggaagaac	2400
taaatccaaa	gatactagct	ttgcagaatg	ctcagagaaa	gcgaaaaaatg	gaacatgatg	2460
gttcactttt	tcaagcagta	ggaattattt	agcatgtaga	ctgctggggc	aatcaatgga	2520
tgaaagtgga	ttaccacagc	tgaccagtta	tgattgtgaa	gttaatgctc	ctatacaagg	2580
cagcagaaac	ctactgcagg	gtgaagaatt	actcagagct	ttggatcaag	ttaaactgagc	2640
tttttcttaa	tttcattcct	ttttttggac	actggtggct	cactacctaa	agcagtcctat	2700
ttatattttc	tacatctaatt	tttagaagcc	tggtcacaat	actgcacaaa	cttgggttagt	2760
tcaatttttg	atcccccttc	tacttaattt	acattaatgc	tcttttttag	tatgttcttt	2820
aatgctggat	cacagacagc	tcattttctc	agtttttttg	tattttaaac	attgcattgc	2880
agtagcatca	ttttaaaaaa	tgcacctttt	tatttattta	tttttggtta	gggagtattat	2940
cccttttttcg	aattattttt	aagaagatgc	caatataatt	tttgtaagaa	ggcagtaacc	3000
tttcatcatg	atcataggca	gttgaaaaat	ttttacacct	ttttttttcac	attttacata	3060
aataataatg	ctttgccagc	agtacgtggg	agccacaatt	gcacaatata	ttttcttaaa	3120
aaataccagc	agttactcat	ggaatatatt	ctgcgtttat	aaaactagtt	tttaagaaga	3180
aatttttttt	ggcctatgaa	attgttaaac	ctggaacatg	acattgttaa	tcatataata	3240
atgattctta	aatgctgtat	ggtttattat	ttaaatgggt	aaagccattt	acataatata	3300
gaaagatatg	catatatcta	gaaggtatgt	ggcatttatt	tggataaaaat	tctcaattca	3360
gagaaatcat	ctgatgtttc	tatagtcact	ttgccagctc	aaaagaaaaac	aataccctat	3420
gtagttgtgg	aagtttatgc	taatattgtg	taactgatat	taaacctaaa	tgttctgcct	3480
accctgttgg	tataaagata	ttttgagcag	actgtaaaca	agaaaaaaaa	aatcatgcat	3540
tcttagcaaa	attgcctagt	atgttaattt	gctcaaaaata	caatgtttga	ttttatgcac	3600
tttgcgcta	ttaacatcct	ttttttcatg	tagattttcaa	taattgagta	attttagaag	3660
cattatttta	ggaatatata	gttgcacacg	taaatatctt	gttttttcta	tgtacattgt	3720
acaaattttt	cattcctttt	gctctttgtg	gttgatctta	acactaactg	tattgttttg	3780

ttacatcaaa taaacatctt ctgtggacca gg

3812

<210> 4

<211> 3718

<212> DNA

<213> Rattus norvegicus

<400> 4

gacaccgcgg	gcaccgattc	gccatggagg	gcgccggcgg	cgagaacgag	aagaaaaata	60
ggatgagttc	cgaacgtcga	aaagaaaagt	ctagggatgc	agcacgatct	cggcgaagca	120
aagagtctga	agttttttat	gagcttgctc	atcagttgcc	acttccccac	aacgtgagct	180
cccatcttga	taaagcttct	gttatgaggc	tcaccatcag	ttacttacgt	gtgaggaaac	240
ttctaggtgc	tggatgatct	gacattgaag	atgaaatgaa	agcacagatg	aactgctttt	300
atctgaaagc	cctggatggc	tttgttatgg	tgctaacaga	tgatggtgac	atgatttaca	360
tttctgataa	cgtgaacaaa	tacatggggt	tgactcagtt	tgaactaact	ggacacagtg	420
tgtttgatth	tacccatcca	tgtgaccatg	aggaaatgag	agaaatgctt	acacacagaa	480
atggcccagt	gagaaagggg	aaagaacaaa	acacgcagcg	aagctttttt	ctcagaatga	540
aatgtaccct	aacaagccgg	gggaggacga	tgaacatcaa	gtcagcaacg	tgggaaggtgc	600
tgcactgcac	aggccacatt	catgtgtatg	ataccagcag	taaccagccg	cagtgtggct	660
acaagaaacc	gcctatgacg	tgcttggtgc	tgatttgtga	acccattcct	catccatcaa	720
acattgaaat	tccttttagac	agcaagacat	ttctcagtcg	acacagcctc	gatatgaaat	780
tttcttactg	tgatgaaagg	attactgagt	tgatgggtta	tgagccagaa	gaacttttgg	840
gccgttcaat	ttatgaatat	tatcatgctt	tggactctga	tcatctgacc	aaaactcatc	900
atgacatggt	tactaaagga	caagtcacca	caggacagta	caggatgctt	gcaaaaagag	960
gtggatatgt	ctgggttgag	actcaagcaa	ctgttatata	taatacgaag	aactctcagc	1020
cacagtgcac	tgtgtgtgtg	aattatgttg	taagtgggtat	tattcagcac	gacttgattt	1080
tctcccttca	acaaacagaa	tctgtcctca	aaccagttga	atcttcagat	atgaaaatga	1140
cccagctggt	cactaaagtg	gaatctgagg	acacgagctg	cctcttcgac	aagcttaaga	1200
aagagcccga	tgccctgact	ctgctagctc	cagcggctgg	ggacacgatc	atatcactgg	1260
acttcggcag	cgatgacacg	gaaactgaag	accaacaact	tgaagatgtc	ccgttgtaca	1320
atgatgtaat	gttccccctc	tctaatagaga	aattaaatai	aaatctggca	atgtctccat	1380
tacctgcctc	tgaaactcca	aagccacttc	gaagtagtgc	tgatcctgca	ctgaatcaag	1440
aggttgcatt	gaagtttagag	tcaagcccag	agtcactggg	actttctttt	accatgcccc	1500
agattcaaga	tcagccagca	agtccttctg	atggaagcac	tagacaaagc	tcacctgagc	1560
ctaacagtcc	cagtgaagtac	tgctttgatg	tggacagcga	tatggtcaat	gtattcaagt	1620
tggaaactgg	ggaaaaactg	tttgctgaag	acacagaagc	gaagaatcca	ttttcagctc	1680
aggacactga	tttagacttg	gaaatgctgg	ctccctatat	cccaatggat	gatgatttcc	1740
agttacgttc	ctttgatcag	ttgtcaccat	tagagagcaa	ttctccaagc	cctccgagtg	1800
tgagcacagt	tacaggattc	cagcagaccc	agttacagaa	acctaccatc	actgtcactg	1860
ccaccgcaac	tgccaccact	gatgaatcaa	aagcagtgac	gaaggacaat	atagaagaca	1920
ttaaaataact	gattgcatct	ccaccttcta	cccaagtacc	tcaagaaatg	accactgcta	1980
aggcatcagc	atacagtggg	actcacagtc	ggacagcctc	accagacaga	gcaggaaaga	2040
gagtcataga	aaaaacagac	aaagctcatc	caaggagcct	taacctatct	gtcactttga	2100
atcaaagaaa	tactgttcc	gaagaagaat	taaaacccaa	gacaatagct	ttgcagaatg	2160
ctcagaggaa	gcgaaaaatg	gaacatgatg	gctccctttt	tcaagcagca	ggaattggaa	2220
cgttactgca	gcaaccaggt	gaccgtgccc	ctactatgtc	gctttcttgg	aaacgagtg	2280
aaggatacat	atctagtga	caggatggaa	tggagcagaa	gacaattttt	ttaataccct	2340
ctgatttagc	atgtagactg	ctggggcag	caatggatga	gagtggatta	ccacagctga	2400
ccagttacga	ttgtgaagtt	aatgctccca	tacaaggcag	cagaaaccta	ctgcagggtg	2460
aagaattact	cagagctttg	gatcaagtta	actgagcttt	tcctaattct	attcctttga	2520
ttgttaattt	ttgtgttcag	ttgttggtgt	tgtctgtggg	gtttcgtttc	tggttggtgt	2580
tttggacact	ggtggctcag	cagtctatth	atattttcta	tatctcattt	agaggcctgg	2640
ctacagtact	gcaccaactc	agatagttta	gtttgggccc	cttctcctt	catttttact	2700
gatgctcttt	ttaccatgtc	cttcogaatg	cagatcacag	cacattcaca	gctccccagc	2760
atthcaccaa	tgcattgctg	tagtgtcgtt	taaaatgcac	ctttttattt	atthattttt	2820

ggtgagggag	tttgtccctt	attgaattat	ttttaatgaa	atgccaatat	aatTTTTTaa	2880
gaaggcagta	aatcttcac	atgatgatag	gcagttgaaa	atTTTTtact	cattTTTTtct	2940
atgttttaca	tgaataaat	gctttgccag	cagtacatgg	tagccacaat	tgcaacaatat	3000
atTTTcttaa	aaataaccagc	agttactcat	gcataatattc	tgcatTTtata	aaactagttt	3060
ttagaagaa	actTTTTttg	gcctatggaa	ttgttaagcc	tggatcatga	tgctgttgat	3120
cttataatga	ttcttaaact	gtatggTTtct	tttatatggg	taaagccatt	tacatgatat	3180
agagagatat	gcttatatct	ggaaggTata	tggcattttat	ttggataaaa	ttctcaattg	3240
agaagtTatc	tgggttttct	ttactTTtacc	ggctcaaaaag	aaaacagtcc	ctatgtagtt	3300
gtggaagcTt	atgctaatat	tgtgtaattg	atattaaaca	ttaaatgttc	tgctatcct	3360
gttggtataa	agacattttg	agcatactgt	aaacaaaaaa	atcatgcatt	gttagtaaaa	3420
ttgcctagTa	tgTTaatttg	ttgaaaatac	gatgtttggT	tttatgcact	ttgtcgctat	3480
taacatcctt	TTTTtcatat	agatttcaat	aattgagtaa	TTTTagaagc	attatttttag	3540
aaatatagag	ttgtcatagt	aaacatcttg	TTTTTTTTtct	TTTTTTtcta	tgtacattgt	3600
ataaattttt	cattcccttg	ctctttgtag	ttgggtctaa	cactaactgt	actgttttgt	3660
tatatcaaat	aaacatcttc	tgtggaccag	gaaaaaaaaa	aaaaaaaaaa	aaaaaaaaa	3718

<210> 5

<211> 3973

<212> DNA

<213> Mus musculus

<400> 5

cgcgaggact	gtcctcgccg	ccgtcgcggg	cagtgtctag	ccaggccttg	acaagctagc	60
cggaggagcg	cctaggaacc	cgagccggag	ctcagcgagc	gcagcctgca	cgcccgccctc	120
gcgtcccggg	ggggtcccgc	ctcccacccc	gcctctggac	ttgtctcttt	ccccgcgcgc	180
gcgacagag	ccggcgTTta	ggcccagagc	agcccggggg	ccgcccggccg	ggaagacaac	240
gcgggcaccg	attcgccatg	gagggcgccg	gcggcgagaa	cgagaagaaa	aagatgagtt	300
ctgaacgtcg	aaaagaaaag	tctagagatg	cagcaagatc	tcggcgaagc	aaagagtctg	360
aagTTTTtta	tgagcttgct	catcagttgc	cacttccccca	caatgtgagc	tcacatcttg	420
ataaagcttc	tgTTatgagg	ctcaccatca	gttattttacg	tgtgagaaaa	cttctggatg	480
ccggtggtct	agacagtga	gatgagatga	aggcacagat	ggactgtttt	tatctgaaag	540
ccctagatgg	ctttgtgatg	gtgctaacag	atgacggcga	catggTTtac	atttctgata	600
acgtgaacaa	atacatgggg	ttaaactcagt	ttgaactaac	tggaacacagt	gtgtttgatt	660
ttactcatcc	atgtgaccat	gaggaaatga	gagaaatgct	tacacacaga	aatggcccag	720
tgagaaaagg	gaaagaacta	aacacacagc	ggagctTTTT	tctcagaatg	aagtgcaccc	780
taacaagccg	ggggaggacg	atgaacatca	agtcagcaac	gtggaaggTg	cttcactgca	840
cgggccatat	tcatgtctat	gataccaaca	gtaaccaacc	tcagtgtggg	tacaagaaac	900
cacccatgac	gtgcttggtg	ctgattttgtg	aacccattcc	tcatccgtca	aatattgaaa	960
ttcctTTtaga	tagcaagaca	tttctcagtc	gacacagcct	cgatatgaaa	ttttcttact	1020
gtgatgaaag	aattactgag	ttgatgggtt	atgagccgga	agaactTTtg	ggccgctcaa	1080
ttatgaata	ttatcatgct	ttggattctg	atcatctgac	caaaactcac	catgatatgt	1140
ttactaaagg	acaagtcacc	acaggacagt	acaggatgct	tgccaaaaga	ggtggatatg	1200
tctgggtTga	aactcaagca	actgtcatat	ataatacgaa	gaactcccag	ccacagtgca	1260
ttgtgtgtgt	gaattatgtt	gtaagtggta	ttattcagca	cgacttgatt	ttctcccttc	1320
aacaaacaga	atctgtgctc	aaaccagttg	aatcttcaga	tatgaagatg	actcagctgt	1380
tcaccaaagt	tgaatcagag	gatacaagct	gcTTTTtga	taagcttaag	aaggagcctg	1440
atgctctcac	tctgtggct	ccagctgccg	gcgacaccat	catctctctg	gattttggca	1500
gcgatgacac	agaaactgaa	gatcaacaac	ttgaagatgt	tccattatat	aatgatgtaa	1560
tgTTtccctc	ttctaataa	aaattaaata	taaacctggc	aatgtctcct	ttaccttcat	1620
cggaaactcc	aaagccactt	cgaagtagtg	ctgatcctgc	actgaatcaa	gaggttgcat	1680
taaaattaga	atcaagtcca	gagtcactgg	gactttcttt	taccatgccc	cagattcaag	1740
atcagccagc	aagtccttct	gatggaagca	ctagacaaag	ttcacctgag	agacttcttc	1800
aggaaaacgt	aaacactcct	aacttttccc	agcctaacag	tcacagtgaa	tattgctttg	1860
atgtggatag	cgatatggTc	aatgtattca	agttggaact	ggtggaaaaa	ctgtttgctg	1920
aagacacaga	ggcaaagaat	ccattttcaa	ctcaggacac	tgatttagat	ttggagatgc	1980

tggtcccta	tatcccaatg	gatgatgatt	tccagttacg	ttcctttgat	cagttgtcac	2040
cattagagag	caattctcca	agccctccaa	gtatgagcac	agttactggg	ttccagcaga	2100
cccagttaca	gaaacctacc	atcactgcc	ctgccaccac	aactgccacc	actgatgaat	2160
caaaaacaga	gacgaaggac	aataaagaag	atattaaaat	actgattgca	tctccatctt	2220
ctacccaagt	acctcaagaa	acgaccactg	ctaaggcatc	agcatacagt	ggcactcaca	2280
gtcggacagc	ctcaccagac	agagcaggaa	agagagtcat	agaacagaca	gacaaagctc	2340
atccaaggag	ccttaagctg	tctgccactt	tgaatcaaag	aaatactgtt	cctgaggaag	2400
aattaaaccc	aaagacaata	gcttcgcaga	atgctcagag	gaagcgaaaa	atggaacatg	2460
atggctccct	ttttcaagca	gcaggaattg	gaacattatt	gcagcaacca	ggtgactgtg	2520
cacctactat	gtcactttcc	tggaaacgag	tgaaaggatt	catatctagt	gaacagaatg	2580
gaacggagca	aaagactatt	attttaatac	cctccgattt	agcatgcaga	ctgctggggc	2640
agtcaatgga	tgagagtgga	ttaccacagc	tgaccagtta	cgattgtgaa	gttaatgctc	2700
ccatacaagg	cagcagaaac	ctactgcagg	gtgaagaatt	actcagagct	ttggatcaag	2760
ttactgagc	gtttccta	ctcattcctt	ttgattgtta	atgtttttgt	tcagttgttg	2820
ttgtttgttg	gggtttgtt	tctgttggtt	atttttggac	actggtggct	cagcagtcta	2880
tttatatttt	ctatatctaa	ttttagaagc	ctggctacaa	tactgcacaa	actcagatag	2940
tttagttttc	atcccccttc	tacttaattt	tcattaatgc	tctttttaat	atgttcctttt	3000
aatgccagat	cacagcacat	tcacagctcc	tcagcatttc	accattgcat	tgctgtagt	3060
tcatttaaaa	tgcacctttt	tatttattta	tttttggtga	gggagtttgt	cccttattga	3120
attattttta	atgaaatgcc	aataataatt	tttaagaaag	cagtaaatc	tcacatgat	3180
cataggcagt	tgaaaacttt	ttactcattt	ttttcatgtt	ttacatgaaa	ataatgcttt	3240
gtcagcagta	catggtagcc	acaattgcac	aataatattt	ctttaaaaaa	ccagcagtta	3300
ctcatgcaat	atattctgca	tttataaaac	tagtttttaa	gaaatttttt	ttggcctatg	3360
gaattgttaa	gcctggatca	tgaagcgttg	atcttataat	gattcttaaa	ctgtatgggt	3420
tctttatatg	ggtaaagcca	tttacctgat	ataaagaaat	atgcttatat	ctggaaggta	3480
tgtggcattt	atttgataa	aattctcaat	tcagagaagt	tatctgggtg	ttcttgactt	3540
taccaactca	aaacagtc	tctgtagtgt	tggaaagctta	tgctaattat	gtgtaattga	3600
ttatgaaaca	taaatgttct	gcccaccctg	ttggtataaa	gacattttga	gcatactgta	3660
aacaaacaaa	caaaaaatca	tgctttgtta	gtaaaattgc	ctagtatgtt	gatttgttga	3720
aaatatgatg	tttggtttta	tgcaactttgt	cgctattaac	atcctttttt	catatagatt	3780
tcaataagtg	agtaatttta	gaagcattat	tttaggaata	tagagtgtgc	atagtaaaca	3840
tcttggtttt	tctatgtaca	ctgtataaat	ttttcgttcc	cttgctcttt	gtgggtgggt	3900
ctaactactaa	ctgtactgtt	ttgttatatc	aaataaacat	cttctgtgga	ccaggaaaaa	3960
aaaaaaaaaa	aaa					3973

<210> 6

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 6

aactggacac agtgtgtttg a

21

<210> 7

<211> 23

<212> RNA

<213> Artificial Sequence

<220>

<223> siRNA sense strand

<400> 7

aacuaacugg acacagugug uuu 23
 <210> 8
 <211> 23
 <212> RNA
 <213> Artificial Sequence
 <220>
 <223> siRNA antisense strand
 <400> 8
 acacacugug uccaguuagu uuu 23
 <210> 9
 <211> 23
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> siRNA sense strand
 <400> 9
 aacuaacugg acacagugug utt 23
 <210> 10
 <211> 23
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> siRNA antisense strand
 <400> 10
 acacacugug uccaguuagu utt 23
 <210> 11
 <211> 21
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> target sequence
 <400> 11
 aactaactgg acacagtgtg t 21
 <210> 12
 <211> 17
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> target sequence
 <400> 12

cgacaagaaa aagataa	17
<210> 13	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 13	
aaagataagt tctgaac	17
<210> 14	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 14	
agataagttc tgaacgt	17
<210> 15	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 15	
gttctgaacg tcgaaaa	17
<210> 16	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 16	
aagaaaagtc tcgagat	17
<210> 17	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 17	

gaaaagtctc gagatgc

17

<210> 18

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 18

agtctcgaga tgcagcc

17

<210> 19

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 19

gtaaagaatc tgaagtt

17

<210> 20

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 20

gaatctgaag tttttta

17

<210> 21

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 21

gttttttatg agcttgc

17

<210> 22

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 22

ggcctctgtg atgaggc 17

<210> 23
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 23
 cttctggatg ctggtga 17

<210> 24
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 24
 agcacagatg aattgct 17

<210> 25
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 25
 aaatgcttac acacagaaat g 21

<210> 26
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 26
 gaaaaagata agttctg 17

<210> 27
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 27

aagataagtt ctgaacg 17

<210> 28
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 28
 gataagttct gaacgtc 17

<210> 29
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 29
 cgtcgaaaag aaaagtc 17

<210> 30
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 30
 agaaaagtct cgagatg 17

<210> 31
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 31
 aagtctcgag atgcagc 17

<210> 32
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 32

gtctcgagat gcagcca	17
<210> 33	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 33	
agaatctgaa gttttttt	17
<210> 34	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 34	
tctgaagttt tttatga	17
<210> 35	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 35	
tgtgagttcg catcttg	17
<210> 36	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 36	
acttctggat gctggtg	17
<210> 37	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 37	

gatgacatga aagcaca	17
<210> 38	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 38	
gcacagatga attgctt	17
<210> 39	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 39	
aagtttttta tgagcttgct c	21
<210> 40	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 40	
aagtttttta tgagcttgct c	21
<210> 41	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 41	
aaggcctctg tgatgaggct t	21
<210> 42	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 42	

aaacttctgg atgctggtga t 21

<210> 43
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 43
 aaacttctgga tgctggtgat t 21

<210> 44
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 44
 aagatgacat gaaagcacag a 21

<210> 45
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 45
 aaagcacaga tgaattgctt t 21

<210> 46
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 46
 aagcacagat gaattgcttt t 21

<210> 47
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 47

aattgctttt atttgaaagc c 21

<210> 48
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 48
 aaagccttgg atggttttgt t 21

<210> 49
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 49
 aagccttgga tggttttgtt a 21

<210> 50
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 50
 aatgtgaaca aatacatggg a 21

<210> 51
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 51
 aacaaataca tgggattaac t 21

<210> 52
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 52

aaatacatgg gattaactca g	21
<210> 53	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 53	
aaatacatgg gattaactca g	21
<210> 54	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 54	
aactcagttt gaactaactg g	21
<210> 55	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 55	
aactaactgg acacagtgtg t	21
<210> 56	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 56	
aactggacac agtgtgtttg a	21
<210> 57	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 57	

aaatgagaga aatgcttaca c	21
<210> 58	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 58	
aatgagagaa atgcttacac a	21
<210> 59	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 59	
aaatgcttac acacagaaat g	21
<210> 60	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 60	
aatgcttaca cacagaaatg g	21
<210> 61	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 61	
aaatggcctt gtgaaaaagg g	21
<210> 62	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 62	

aatggccttg tgaaaaaggg t	21
<210> 63	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 63	
aaaaagggtg aagaacaaaa c	21
<210> 64	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 64	
aaaagggtaa agaacaaaac a	21
<210> 65	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 65	
aaagggtaaa gaacaaaaca c	21
<210> 66	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 66	
aagggtaaag aacaaaacac a	21
<210> 67	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 67	

aaagaacaaa acacacagcg a	21
<210> 68	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 68	
aagaacaaaa cacacagcga a	21
<210> 69	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 69	
aacaaaacac acagcgaagc t	21
<210> 70	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 70	
aacaaaacac acagcgaagc t	21
<210> 71	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 71	
aaacacacag cgaagctttt t	21
<210> 72	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 72	

aacacacagc gaagcttttt t	21
<210> 73	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 73	
aagctttttt ctcagaatga a	21
<210> 74	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 74	
aatgaagtgt accctaacta g	21
<210> 75	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 75	
aagtgtaccc taactagccg a	21
<210> 76	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 76	
aactagccga ggaagaacta t	21
<210> 77	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 77	

aagaactatg aacataaagt c	21
<210> 78	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 78	
aactatgaac ataaagtctg c	21
<210> 79	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 79	
aacataaagt ctgcaacatg g	21
<210> 80	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 80	
aaagtctgca acatggaagg t	21
<210> 81	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 81	
aagtctgcaa catggaaggt a	21
<210> 82	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 82	

aacatggaag gtattgcact g 21

<210> 83
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 83
 aaggatttgc actgcacagg c 21

<210> 84
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 84
 aacagtaacc aacctcagtg t 21

<210> 85
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 85
 aaccaacctc agtgtgggta t 21

<210> 86
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 86
 aacctcagtg tgggtataag a 21

<210> 87
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 87

aagaaaccac ctatgacctg c	21
<210> 88	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 88	
aagaaaccac ctatgacctg c	21
<210> 89	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 89	
aaccacctat gacctgcttg g	21
<210> 90	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 90	
aaccattcc tcacccatca a	21
<210> 91	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 91	
aaatattgaa attccttttag a	21
<210> 92	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 92	

aatattgaaa ttcctttaga t	21
<210> 93	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 93	
aaatttccttt agatagcaag a	21
<210> 94	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 94	
aatttccttta gatagcaaga c	21
<210> 95	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 95	
aagactttcc tcagtcgaca c	21
<210> 96	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 96	
aaattttctt attgtgatga a	21
<210> 97	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 97	

aattttctta ttgtgatgaa a	21
<210> 98	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 98	
aaagaattac cgaattgatg g	21
<210> 99	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 99	
aattaccgaa ttgatgggat a	21
<210> 100	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 100	
aattaccgaa ttgatgggat a	21
<210> 101	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 101	
aagaactttt aggccgctca a	21
<210> 102	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 102	

aacttttagg ccgctcaatt t 21

<210> 103
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 103
 aatttatgaa tattatcatg c 21

<210> 104
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 104
 aatattatca tgctttggac t 21

<210> 105
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 105
 aaaactcatc atgatatggt t 21

<210> 106
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 106
 aaactcatca tgatatgttt a 21

<210> 107
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 107

aactcatcat gatatgttta c	21
<210> 108	
<211> 21	
<212> DNA	
<213> Artificial Sequence	/
<220>	
<223> target sequence	
<400> 108	
aaaggacaag tcaccacagg a	21
<210> 109	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 109	
aaggacaagt caccacagga c	21
<210> 110	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 110	
aagtcaccac aggacagtac a	21
<210> 111	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 111	
aaaagaggtg gatatgtctg g	21
<210> 112	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 112	

aaagaggtgg atatgtctgg g	21
<210> 113	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 113	
aagaggtgga tatgtctggg t	21
<210> 114	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 114	
aaactcaagc aactgtcata t	21
<210> 115	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 115	
aactcaagca actgtcatat a	21
<210> 116	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 116	
aagcaactgt catatataac a	21
<210> 117	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 117	

aactgtcata tataacacca a

21

<210> 118

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 118

aacaccaaga atttctcaacc a

21

<210> 119

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 119

aagaattctc aaccacagtg c

21

<210> 120

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 120

aatttctcaac cacagtgcac t

21

<210> 121

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 121

aaccacagtg cattgtatgt g

21

<210> 122

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 122

aattacgttg tgagtggat t 21

<210> 123
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 123
 aacaaacaga atgtgtcctt a 21

<210> 124
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 124
 aaacagaatg tgccttaaa c 21

<210> 125
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 125
 aacagaatgt gtccttaaac.c 21

<210> 126
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 126
 atgtgtcctt aaaccggttg 20

<210> 127
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 127

aaaccggttg aatcttcaga t 21

<210> 128
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 128
 aaccggttga atcttcagat a 21

<210> 129
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 129
 aatcttcaga tatgaaaatg a 21

<210> 130
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 130
 aaaatgactc agctattcac c 21

<210> 131
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 131
 aaatgactca gctattcacc a 21

<210> 132
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 132

aatgactcag ctattcacca a 21

<210> 133
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 133
 aaagttgaat cagaagatac a 21

<210> 134
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 134
 aagttgaatc agaagataca a 21

<210> 135
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 135
 aatcagaaga tacaagtagc c 21

<210> 136
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 136
 aagatacaag tagcctcttt g 21

<210> 137
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 137

aagtagcctc ttgacaaac t 21

<210> 138
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 138
 aaacttaaga aggaacctga t 21

<210> 139
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 139
 aacttaagaa ggaacctgat g 21

<210> 140
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 140
 aagaaggaac ctgatgcttt a 21

<210> 141
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 141
 aaggaacctg atgctttaac t 21

<210> 142
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 142

aacctgatgc tttaactttg c 21
 <210> 143
 <211> 21
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> target sequence
 <400> 143
 aacttttgctg gccccagccg c 21
 <210> 144
 <211> 21
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> target sequence
 <400> 144
 aatcatatct ttagattttg g 21
 <210> 145
 <211> 21
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> target sequence
 <400> 145
 aacgacacag aaactgatga c 21
 <210> 146
 <211> 21
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> target sequence
 <400> 146
 aaactgatga ccagcaactt g 21
 <210> 147
 <211> 21
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> target sequence
 <400> 147

aactgatgac cagcaacttg a 21

<210> 148
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 148
 aacttgagga agtaccatta t 21

<210> 149
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 149
 aagtaccatt atataatgat g 21

<210> 150
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 150
 aatgatgtaa tgctcccctc a 21

<210> 151
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 151
 aatgctcccc tcaccaacg a 21

<210> 152
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 152

aacgaaaaat tacagaatat a	21
<210> 153	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 153	
aaaaattaca gaatataaat t	21
<210> 154	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 154	
aaaattacag aatataaatt t	21
<210> 155	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 155	
aaattacaga atataaattt g	21
<210> 156	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 156	
aattacagaa tataaatttg g	21
<210> 157	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 157	

aatataaaatt tggcaatgtc t 21

<210> 158
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 158
 aaatttggca atgtctccat t 21

<210> 159
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 159
 aatttggcaa tgtctccatt a 21

<210> 160
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 160
 aatgtctcca ttacccaccg c 21

<210> 161
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 161
 aaacgccaaa gccacttcga a 21

<210> 162
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 162

aacgccaaag ccacttcgaa g	21
<210> 163	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 163	
aaagccactt cgaagtagtg c	21
<210> 164	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 164	
aagccacttc gaagtagtgc t	21
<210> 165	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 165	
aagtagtgct gaccctgcac t	21
<210> 166	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 166	
aatcaagaag ttgcattaaa a	21
<210> 167	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 167	

aagaagttgc attaaaatta g 21

<210> 168
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 168
 aagttgcatt aaaattagaa c 21

<210> 169
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 169
 aaaattagaa ccaaaccag a 21

<210> 170
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 170
 aaattagaac caaatccaga g 21

<210> 171
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 171
 aattagaacc aaatccagag t 21

<210> 172
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 172

aaccaaattcc agagtcactg g 21

<210> 173
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 173
 aaatccagag tcactggaac t 21

<210> 174
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 174
 aatccagagt cactggaact t 21

<210> 175
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 175
 aactttcttt taccatgccc c 21

<210> 176
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 176
 aagcactaga caaagttcac c 21

<210> 177
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 177

aaagttcacc tgagcctaata a	21
<210> 178	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 178	
aagttcacct gagcctaata g	21
<210> 179	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 179	
aatagtccca gtgaatattg t	21
<210> 180	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 180	
aatattgttt ttatgtggat a	21
<210> 181	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 181	
aatgaattca agttggaatt g	21
<210> 182	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 182	

aattcaagtt ggaattggta g	21
<210> 183	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 183	
aagttggaat tggtagaaaa a	21
<210> 184	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 184	
aattggtaga aaaacttttt g	21
<210> 185	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 185	
aaaacttttt gctgaagaca c	21
<210> 186	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 186	
aaactttttg ctgaagacac a	21
<210> 187	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 187	

aactttttgc tgaagacaca g 21

<210> 188
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 188
 aagacacaga agcaaagaac c 21

<210> 189
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 189
 aagcaaagaa cccattttct a 21

<210> 190
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 190
 aaagaaccca ttttctactc a 21

<210> 191
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 191
 aagaacccat tttctactca g 21

<210> 192
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 192

aacccatttt ctactcagga c	21
<210> 193	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 193	
aatggatgat gacttccagt t	21
<210> 194	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 194	
aaagcagttc cgcaagccct g	21
<210> 195	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 195	
aagcagttcc gcaagccctg a	21
<210> 196	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 196	
aagccctgaa agcgcaagtc c	21
<210> 197	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 197	

aaagcgcaag tcctcaaagc a

21

<210> 198

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 198

aagcgcaagt cctcaaagca c

21

<210> 199

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 199

aagtcctcaa agcacagtta c

21

<210> 200

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 200

aaagcacagt tacagtattc c

21

<210> 201

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 201

aagcacagtt acagtattcc a

21

<210> 202

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 202

aaatacaaga acctactgct a 21

<210> 203
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 203
 aatacaagaa cctactgcta a 21

<210> 204
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 204
 aagaacctac tgctaatgcc a 21

<210> 205
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 205
 aacctactgc taatgccacc a 21

<210> 206
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 206
 aatgccacca ctaccactgc c 21

<210> 207
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 207

aattaaaaac agtgacaaaa g 21

<210> 208
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 208
 aaaaacagtg acaaaagacc g 21

<210> 209
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 209
 aaaacagtga caaaagaccg t 21

<210> 210
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 210
 aaacagtgac aaaagaccgt a 21

<210> 211
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 211
 aacagtgaca aaagaccgta t 21

<210> 212
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 212

aaaagaccgt atggaagaca t 21
 <210> 213
 <211> 21
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> target sequence
 <400> 213
 aaagaccgta tggaagacat t 21
 <210> 214
 <211> 21
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> target sequence
 <400> 214
 aagaccgtat ggaagacatt a 21
 <210> 215
 <211> 21
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> target sequence
 <400> 215
 aagacattaa aatattgatt g 21
 <210> 216
 <211> 21
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> target sequence
 <400> 216
 aaaatattga ttgcatctcc a 21
 <210> 217
 <211> 21
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> target sequence
 <400> 217

aaatattgat tgcattcca t	21
<210> 218	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 218	
aatattgatt gcatctccat c	21
<210> 219	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 219	
aaagaaacta ctagtgccac a	21
<210> 220	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 220	
aagaaactac tagtgccaca t	21
<210> 221	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 221	
aaactactag tgccacatca t	21
<210> 222	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 222	

aactactagt gccacatcat c 21

<210> 223
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 223
 aaagtcggac agcctcacca a 21

<210> 224
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 224
 aagtcggaca gcctcaccaa a 21

<210> 225
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 225
 aaacagagca ggaaaaggag t 21

<210> 226
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 226
 aacagagcag gaaaaggagt c 21

<210> 227
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 227

aaaaggagtc atagaacaga c

21

<210> 228

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 228

aaaggagtca tagaacagac a

21

<210> 229

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 229

aaggagtcac agaacagaca g

21

<210> 230

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 230

aacagacaga aaaatctcat c

21

<210> 231

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 231

aaaaatctca tccaagaagc c

21

<210> 232

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> target sequence

<400> 232

aaaatctcat ccaagaagcc c	21
<210> 233	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 233	
aaatctcatc caagaagccc t	21
<210> 234	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 234	
aatctcatcc aagaagccct a	21
<210> 235	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 235	
aagaagccct aacgtgttat c	21
<210> 236	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 236	
aagccctaac gtgttatctg t	21
<210> 237	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 237	

aacgtgttat ctgtcgcttt g 21

<210> 238
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 238
 aaagaactac agttcctgag g 21

<210> 239
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 239
 aagaactaca gttcctgagg a 21

<210> 240
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 240
 aactacagtt cctgaggaag a 21

<210> 241
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 241
 aagaactaaa tccaaagata c 21

<210> 242
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 242

aactaaatcc aaagatacta g	21
<210> 243	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 243	
aaatccaaag atactagctt t	21
<210> 244	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 244	
aatccaaaga tactagcttt g	21
<210> 245	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 245	
aaagatacta gctttgcaga a	21
<210> 246	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 246	
aagatactag ctttgcagaa t	21
<210> 247	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 247	

aatgctcaga gaaagcgaaa a	21
<210> 248	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 248	
aaagcgaaaa atggaacatg a	21
<210> 249	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 249	
aagcgaaaaa tggaacatga t	21
<210> 250	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 250	
aaaaatggaa catgatggtt c	21
<210> 251	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 251	
aaaatggaac atgatggttc a	21
<210> 252	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 252	

aaatggaaca tgatggttca c	21
<210> 253	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 253	
aatggaacat gatggttcac t	21
<210> 254	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 254	
aacatgatgg ttcacttttt c	21
<210> 255	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 255	
aagcagtagg aattggaaca t	21
<210> 256	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 256	
aattggaaca ttattacagc a	21
<210> 257	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 257	

aacattatta cagcagccag a	21
<210> 258	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 258	
aaacgtgtaa aaggatgcaa a	21
<210> 259	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 259	
aacgtgtaaa aggatgcaaa t	21
<210> 260	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 260	
aaaaggatgc aaatctagtg a	21
<210> 261	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 261	
aaaggatgca aatctagtga a	21
<210> 262	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 262	

aaggatgcaa atctagtgaa c 21

<210> 263
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 263
 aaatctagtg aacagaatgg a 21

<210> 264
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 264
 aatctagtga acagaatgga a 21

<210> 265
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 265
 aacagaatgg aatggagcaa a 21

<210> 266
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 266
 aatggaatgg agcaaaagac a 21

<210> 267
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 267

aatggagcaa aagacaatta t	21
<210> 268	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 268	
aaaagacaat tattttaata c	21
<210> 269	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 269	
aaagacaatt attttaatac c	21
<210> 270	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 270	
aagacaatta ttttaatacc c	21
<210> 271	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 271	
aattatttta ataccctctg a	21
<210> 272	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 272	

aataccctct gatttagcat g	21
<210> 273	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 273	
aatcaatgga tgaaagtgga t	21
<210> 274	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 274	
aatggatgaa agtggattac c	21
<210> 275	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 275	
aaagtggatt accacagctg a	21
<210> 276	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 276	
aagtggatta ccacagctga c	21
<210> 277	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 277	

catcagttgc cacttccaca t	21
<210> 278	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 278	
cttggatggg tttgttatgg t	21
<210> 279	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 279	
atgggattaa ctcagtttga a	21
<210> 280	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 280	
gtctgcaaca tggaaggat t	21
<210> 281	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 281	
cattcctcac ccatcaaata t	21
<210> 282	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 282	

aggccgctca atttatgaat a 21

<210> 283
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 283
 tcatatataa caccaagaat t 21

<210> 284
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 284
 tgtccttaaa ccggttgaat c 21

<210> 285
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 285
 agcctctttg acaaacttaa g 21

<210> 286
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 286
 atgaccagca acttgaggaa g 21

<210> 287
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target sequence

<400> 287

cattacccac cgctgaaacg c	21
<210> 288	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 288	
agattcagga tcagacacct a	21
<210> 289	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 289	
atagtgatat ggtcaatgaa t	21
<210> 290	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 290	
acacagattt agacttgag a	21
<210> 291	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 291	
cacagttaca gtattccagc a	21
<210> 292	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 292	

attgattgca tctccatctc c	21
<210> 293	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 293	
atactagctt tgcagaatgc t	21
<210> 294	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 294	
attattacag cagccagacg a	21
<210> 295	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 295	
acaattattt taataccctc t	21
<210> 296	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 296	
accagttatg attgtgaagt t	21
<210> 297	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> target sequence	
<400> 297	

aactaactgg acacagtgtg t

21

<210> 298

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> siRNA sense strand

<400> 298

cuaacuggac acagugugut t

21

<210> 299

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> siRNA antisense strand

<400> 299

acacacugug uccaguuagt t

21